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# The EXTENSION ANIMAL HUSBANDMAN

UNITED STATES DEPARTMENT
OF AGRICULTURE
WASHINGTON,
D.C.

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Washington, D. C.

# THE EXTENSION ANIMAL HUSBANDMAN

Issued quarterly by the Bureau of Animal Industry
and Extension Service, Cooperating.
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K. F. Warner, Senior Extension Meat Specialist.

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# CAN 4-H CLUB WORK BE "PRACTICAL"

By Rex Beresford, Extension Animal Husbandman,
Iowa State College

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Competition puts "punch" into a lot of human affairs including 4-H livestock club work. The desire to win, to stand at the top, even of a small group is a powerful incentive. In the main, the results of the competitive idea and spirit in 4-H club work are probably more good than otherwise. But when competition overshadows the practical in a project whose avowed purpose is educational it occurs to us that a little de-emphasis may be called for occasionally in 4-H club work as well as in collegiate athletics.

We like competition in club work and we do not want to do without it. We do feel sometimes, however, that a little better perspective is needed and that other things of equal, or perhaps, greater importance need to be stressed occasionally to keep a reasonable balance. Our chief difficulty in Iowa with competition is that we do not have enough championships to go around. Iowa 4-H'ers fed some 10,000 baby beeves and over 600 purebred beef heifers, approximately 25,000 swine, over 9,000 sheep and lambs, and 1,100 colts in 1940 in the 4-H club projects. Most of these animals were shown at one or more fairs or shows in competition for ribbons and prize money. That is a lot of livestock and, incidentally, calls for a lot of blue ribbons. It also means a lot of disappointments for those who did not stand at the top or near it and unless there are sufficient other values and compensations in the youngsters' club program, it leads to difficulty.

One of the results of competition is the annual autumnal hunt, on the part of club members, their dads, club committees, county club agents, and promoters for the necessary 10,000 future grand champion steers with which to start the project. Here is one of the places where we have thought de-emphasis might be worth something. We feel that every boy who goes into a baby-beef feeding project should have a calf which, with proper feeding, will develop into at least a good to choice finished steer. We have stressed the idea that the rank and file of baby-beef club members should confine their purchases to choice commercial calves at commercial prices. From a practical standpoint the methods that apparently have been getting some results along this line are: (1) The use of home-raised calves when reasonably suitable ones have been available; (2) the purchase, by county club committees, of satisfactory calves in truckload or carload lots for distribution among club members. Incidentally, the most satisfactory plan for distribution worked out so far has been the determination by the committee on the average

price at which the calves must be sold to the club members in order to cover their cost to the committee. The calves are then sold at auction to the boys with the understanding that if the total receipts of the sale are more than required to cover the cost, a pro-rata reduction will be made on the basis of prices bid; but that if total receipts are less than the cost, the necessary pro-rata addition will be made to the price of each calf to raise the required amount.

This plan gives each boy a chance to exercise his judgment and gain some valuable experience and does not prevent him from "going out on a limb" a little for the calf of his choice, if necessary. It has tended to standardize values on the basis of current market prices, however, and has taken out of the picture some of the undesirable promotion features that have resulted in commercial-club calf auctions. At any rate, this scheme has worked the best of anything that we have tried.

Another attempt to be practical in our beef-feeding clubs has been the organization of a 5-calf commercial feeding project for the older club boys. In a number of the counties, adopting this project, no attempt has been made to hold a show. The factors of rate of gain, efficiency in feeding, and the finish obtained are the measuring sticks of a boy's success in this project.

In one district of 13 counties, a show has been held in which the cattle have been brought together and the lots graded into blue-ribbon, red-ribbon, and white-ribbon classes on the basis of commercial grades of Choice, Good, and Medium, with all lots receiving the same money prizes. Additional prizes have been offered at this show for efficiency in feeding as shown by the record books and on the rate of gain obtained by the feeder. The boys have the choice of selling their cattle at an auction held in connection with the show or of taking them home for later marketing.

In a number of other individual county projects along this line, calves have been assembled, in the morning, for a junior cattle feeders' day, without any attempt at show or prizes, then shipped as commercial cattle to the market where they have been graded and sold in lots as fed cattle, with the selling price of the different lots telling the story as to the finish and the efficiency of the feeder. From the way this project has been progressing, we think it has a future in this State, for the older club boy who is interested in commercial cattle feeding.

An analysis of the record books submitted by the boys enrolled in this project has been made each year by the farm management department. This analysis shows the significant factors of

efficiency with which the job has been done. The boy has a chance to compare his record with the average, the high one-third, and the low one-third of records submitted. This has proved to be one of the most popular parts of this particular project and it has furnished some valuable information, not only for use with our club boys but with cattle feeders as well.

Purebred-beef heifer clubs have been popular locally and in many instances have been the start of the founding of good herds of purebreds or of commercial cattle. We have felt, however, that a large number of boys who might be interested in the founding of commercial herds are not ready for an investment in registered cattle, and that in certain sections of our State there might be a field for a grade-beef heifer or cow project. We succeeded in starting this on a small scale 2 years ago and think it has possibilities. In this project the older club boy, with proper farm background and parental cooperation, starts with from 3 to 5 high-grade heifers, either calves or yearlings, as a foundation for a commercial breeding herd. The first opportunity for a show in connection with this project is when the boy has produced and fed a steer from his herd. This project has complications but we find a surprising number of older club boys interested in it.

Emphasis in our pig-club work has shifted more and more from trying to make purebred breeders out of our boys into the field of market-swine production. Nearly four-fifths of the 25,000 swine included in pig-club projects in 1940 were in the market division. Most of these were probably purebreds or crossbreds but the emphasis of the program was on market or commercial hog production.

In our sheep-club work, the emphasis has shifted entirely to two types of clubs. One has been the western lamb-feeding project where the boys take 16 western feeder lambs, fatten them for market, and assemble them for a show and sale. Here again, prizes are minor features, the analysis of the feeding record showing the efficiency of the boy as a feeder. His judgment in choice of feed and feeding methods and the financial returns are the important factors.

The quality-lamb-production 4-H project is one in which a group of boys in one county or locality purchase 10 head each of western or native ewes, obtain a good purebred ram with which to mate them, and keep them together on one farm until bred for early spring lambs. When ready for sale in June the lambs are brought together for grading and sale on a cooperative basis. We have great hopes for this project as it appears to be "catching on" quickly. In this, the first year, 182 boys in 18 counties have started out with 1,445 ewes. We will know more about it in a few years.

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# SUCCESSFUL 4-H CLUB WORK IN NEVADA

By Paul L. Maloney, District Extension Agent,
Winnemucca, Nevada.

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It is conceded by many county agricultural agents and club specialists that one of the most important problems confronting the 4-H Club program is the large number of older boys lost from club work.

There are definite, determinable reasons why boys from the ages of about 14 to 20 lose interest in their club work. Every county agent and club leader realizes the value of keeping these boys interested in their club demonstrations during those impressionable ages, as those are the ages when real progress can be made by the interested club member.

It is easy to encourage the boy of 11 or 12 years of age to join the 4-H Club and feed a lamb or a pig for market or to claim a dairy calf as his project, without being required to raise the calf separately from the rest of the calves in the lot.

He gets the social side of the club work by being permitted to attend meetings, and possibly district and State encampments, as a reward for his club efforts.

When this ambitious boy has reached the age of about 14 years and is asked to feed another lamb or pig, or to pick again the dairy calf with some distinguishing mark for identification, he naturally loses interest and leaves the club work for junior members to carry on.

It is often difficult for the parents, the banker, and, in some observed instances, the county agent, to realize that the boys from 14 to 20 years of age are capable of assuming a greater amount of responsibility. Evidence of this statement can be observed in many of the club demonstrations now being conducted throughout the different counties.

One of the reasons why older boys lose interest is due to the fact that too few of them are encouraged or permitted to enlarge their demonstrations, as their advanced years and experience justifies their promotion to greater achievements.

While it is logical for a small boy to start his first year in club work with a simple project, yet, if his club is going to be of maximum benefit to him, each year should offer an enlarged demonstration and more responsibility.

Recognizing this fact, Thomas E. Buckman, acting director of the Nevada extension service, formulated the plan, sometime ago, of having each boy actually own all the units involved in the club member's projects. This "self-ownership" plan has done more to encourage the older club members to continue their club work than any single factor presented to the club program in Nevada.

If a club member in Nevada desires to feed a lamb, a baby-beef calf, or a pig, he is required to purchase the animal in his own right. If he hasn't the money, he and his county agent visit the local banker and arrange for the loan. When the project is completed, the bank loan is repaid. Any remaining profit is invested by the youth in the purchase of additional animals to enlarge his project.

Should a boy desire to take a dairy project he is required actually to go into the dairy business by purchasing a bred heifer from a high producing herd where production records are kept. When the animal freshens, the club member weighs and tests the milk twice each month. He calculates the value of the product, pays his proportionate share of the feed and the balance on his debt, if one was incurred, and the profits belong to the club member.

In this way the demonstration is a continuous one and is enlarged each year and, when the boy finishes school, he has livestock with which to start in business for himself.

The number of members who join the "self-ownership" club might not be so large as the number who could be induced to join under the old plan. However, the quality of the members obtained and the value of the club program to the individual member and to the project will be greatly increased.

An example can be given of how the "self-ownership" plan has worked in a county where the program was first instituted in Nevada. For the sake of brevity, the record of achievement of only one member of the Humboldt County livestock improvement club will be taken for this example.

Lyman Schwartz, son of a cattleman of Paradise Valley, joined the 4-H Club in 1935, when he was 11 years old. For his first club year, Lyman was enrolled with a group of his own age and was taught to tie the common knots used on a livestock ranch, to make a rope halter, splice rope, and was started on the fundamental principles of judging cattle.

For his second year, 1936, Lyman purchased a month-old calf to feed and fit for the junior livestock show. He made a profit on the enterprise and, for his third year, 1937, fed two calves for the same show and took, as a supplemental project, the study of range plants and range management.

A few of the members who had started in the same class in 1935 with Lyman had fallen by the wayside. Those remaining in the club, of which Lyman was one, were now ready for the fourth year of club work and ready for larger responsibilities. They had proved themselves capable of loving livestock, of keeping a good set of records, and, above all, they had established their credit with the local banker by having paid their debts promptly.

Coming back to the individual: Lyman wished to go into the purebred livestock breeding business. Arrangements were made with the First National Bank of Winnemucca, for enough money to purchase two purebred, registered Hereford cows, each with a bull calf at side. More than 3,000 miles were traveled by the youth and his county agent inspecting different herds of cattle before a decision was made.

For the fourth year's club work, in 1938, Lyman took as his demonstration the two purebred Hereford cows and bull calves. He also fed a steer for the junior livestock show at the World's Fair at Treasure Island, San Francisco, Calif.

In 1939, the fifth year of enrollment for Lyman, he purchased two of the purebred cows and one of the calves from a fellow club member who was ready to go to school in another town. His original cows, purchased in 1938, had dropped two more bull calves. He also purchased two grade calves to feed out as baby-beef for the junior livestock show at Reno, Nev.

Lyman now owns, in his fifth year of club work, four purebred Hereford cows, four small calves, three long-yearling bulls, and two steers, a total of 13 head of cattle, valued at $2,000. He exhibited his purebred cattle at the Humboldt County fair in Winnemucca in September 1939. One of his purebred bull calves, purchased in 1938, was judged champion of the show and sold at auction for $335. Another bull sold for $255, and he kept his best bred and best type bull as a herd sire prospect. Lyman won $213.50 in prizes on his livestock during 1939 and sold his two steers for $156.40, making a total income for 1939 of $959.90. He immediately paid off in full his note at the bank and began making preparations for his 1940 year of club work.

Being now ready for his sixth year of club work, out of debt and owning nine head of registered cattle, with confidence in the livestock business and in his own ability to pay off another reasonable debt at the bank, and wishing to enlarge his herd, Lyman gave his nine head as security and borrowed a total of $1,800. This loan, together

with his own savings, purchased for his 1940 club year a total of eight purebred, registered Hereford cows, each with a bull calf at side.

In 1940 Lyman exhibited purebred cattle at Reno and at the Humboldt County fair at Winnemucca. He won as prizes a total of $588 and the sales from his cattle amounted to $1,315.88, making a total income for 1940 of $1,903.88.

After paying feed bills for his stock and his expenses to the shows, Lyman was able to pay a total of $1,421.58 as principal on his note at the bank and $72.32 as interest, leaving a balance owed the local bank of only $378.42.

Lyman has signed up in club work for his 1941 demonstration, his seventh year in club work. He has, through purchase and breeding, accumulated an inventory of 28 head of purebred, registered Hereford cattle, and one steer to be exhibited and sold at the junior livestock show at Reno in April of this year. His cattle are conservatively inventoried at $3,440, with only $378.42 against them. While still in school, Lyman Schwartz is in business for himself, operating a going concern.

The writer has tried to present a detailed description of one club member to prove that it is possible to keep the interest of the older club members, also to make them more skillful in their accepted work and more capable of meeting the competition of life. In order to do so, one must not insist upon keeping the boy in the one-lamb, one-pig, or one-calf class, but must hold his continued interest by advancing him into larger responsibilities by encouraging him to assume the enlarged programs which he rightfully demands in order to hold his enthusiasm and interest. He then realizes that he is being given a fair and reasonable chance to succeed through his own efforts.

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## 1941 LIVESTOCK REPORTS

The following schedule shows the issuance dates of the indicated livestock reports of the Crop Reporting Board, U.S.D.A., for the remainder of 1941:

May 12 - Development of Early Lamb Crop.
June 27 - Spring Pig Crop.
July 25 - Lamb Crop.
Aug. 1 - Wool Shorn.
Aug. 12 - Cattle on Feed.
Oct. 13 - Cattle Feeding Situation.
Oct. 14 - Lamb Feeding Situation.
Nov. 12 - Cattle Feeding Situation.
Nov. 13 - Lamb Feeding Situation.
Dec. 11 - Cattle Feeding Situation.
Dec. 12 - Lamb Feeding Situation.
Dec. 23 - Fall and Total Pig Crop.

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# PROGRESS OF BETTER SIRES--BETTER STOCK CAMPAIGN TO DECEMBER 31, 1940

By D. S. Burch, Editorial and Information Office,
Bureau of Animal Industry, U. S. Department of Agriculture.

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Begun in 1919 as a means of stimulating interest in livestock improvement through the use of meritorious purebred sires, the Better Sires--Better Stock campaign has been in progress continuously since that time. The project involves, briefly, written declarations on the part of livestock owners that they will use purebred sires for all classes of livestock kept. These declarations, in the form of enrollment sheets, when countersigned by a county agent or other extension worker, entitle the livestock owner to a certificate and a sign showing his participation in this activity. Several questionnaires have shown that numerous practical benefits, including greater utility value of improved livestock, greater stability of surplus animals, and greater net returns for them, have been some of the fruits derived.

In recent years the better-sires campaign has not been publicized by the Department because of the large amount of additional work conducted by county agents in connection with agricultural adjustment and related activities. However, the Bureau of Animal Industry has continued to enroll persons who have sent in enrollment sheets. On December 31, 1940, enrollments for the entire period reached a total of 18,496. Of this number, 90 were received during 1939 and 25 during 1940. It is noteworthy that the 90 enrollments received in 1939 were from 13 different counties in 5 States. The 25 enrollments received in 1940 were from 10 different counties in 6 States.

Of the 90 enrollments received in 1939, the leading counties were Macon County, Ill., with 37 enrollments; Tallapoosa County, Ala., with 16; and Cattaraugus County, N. Y., with 13. In 1940, Butler County, Mo., supplied 16 of the 25 enrollments; Pickens County, Ala., was second with 2 enrollments; all other counties had 1 enrollment each.

Although no new literature has been prepared during the last few years, the Bureau has continued the distribution of material previously prepared, including the mimeographed scrub-bull trial. The report of such a trial, held at Montgomery, Ala., was made by Tom McCord, vice president of the Union Stock Yards there. He reports that the trial, which resulted in a "guilty" verdict for a scrub dairy bull, was attended by 150 persons in connection with a sale of purebred cattle. He reports the trial as adding materially to the success of the sale and that it was "right attractively handled."

Details of participation may be obtained from the Editorial and Information Office, Bureau of Animal Industry, U. S. Department of Agriculture.

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## MIDDLE TENNESSEE FALL LAMB SHOW AND SALE

By P. P. Hite,
Assistant Specialist in Sheep Husbandry,
University of Tennessee.

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A large number of light and unfinished lambs go to market in Tennessee every summer. A few years ago extension workers and 4-H Club and Future Farmer leaders worked out a plan for the boys and girls to buy these lambs and feed them for a show and sale in early winter. Each year there has been a larger number of lambs fed and shown than the previous year.

The ninth show and sale was held on November 7, 1940, at the Union Stock Yards, Nashville, Tenn. Ninety-two boys and girls from eight counties in middle Tennessee brought 948 lambs to the show and sale. The lambs were graded according to U. S. standard grades as follows: 411 Choice, 404 Good, 93 Medium, and 40 Culls. This may not look like a good record but a number of these boys and girls had never handled sheep before and a few of the lambs were of inferior quality when they started feeding.

After the lambs were graded and weighed, the show was held and each boy and girl showed an individual lamb and a pen of three lambs. There was much interest in the show and a number of the parents were present to observe.

The sale of the lambs has always received good support from the buyers. Most of the lambs bring more than the market price. Of course the boys and girls lose a few lambs by death but all made money on their investment. In the last sale the Choice lambs brought $9.89 per hundredweight; the Good lambs, $8.80; the Medium, $7.41; and the Culls, $5.17.

One of the main objects in this project is to get club boys and girls interested in sheep. After they finish school they will likely want a few sheep on the farm and they will know better how to care for a flock. The writer knows of one boy that showed lambs in one of the first shows and who now has a small flock of registered sheep.

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The horse has proven one of the ablest and most ancient allies of man, in peace or war--no matter whether his master was savage or civilized--no matter the language he spoke, the God he worshipped or the climate or land in which he lived. Is it any wonder than that those whose duty it is to make a decision look back on history and the recent past with no assurance that our dependency on the horse in war is at an end?

--Col. Edwin N. Hardy, Chief, Army Remount Service.

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# VIRGINIA SELLS FEEDER CALVES TOO

By Paul Swaffar, Assistant Extension Animal Husbandman,
Virginia A. & M. College and Polytechnic Institute.

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In practically all the States along the Atlantic seaboard farmers have the "cow fever." Virginia is no exception, and in sections of the State where the beef cow was once an alien she is now being welcomed.

Virginia happens to have a wide variety of agricultural enterprises, including cattle, sheep, hogs, apples, tobacco, big truck farms, oyster farms, muskrats, bird-eye beans, and others. The mountainous sections adjacent to West Virginia, Kentucky, and Tennessee and a few counties bordering North Carolina produce good bluegrass. Farmers with the better pastures in these sections once specialized in "export" steers. These were big fellows, usually 4 or 5 years old and weighing 1,500 pounds or more when they went to market. One does not see many of the big ones any more because people have practically quit eating that kind of beef and cattlemen have had to turn to smaller, younger steers for market. A large part of the grass-finished cattle are now 2-year-olds plus, and graziers are having to select a little different type of steer, one that will finish at an earlier age and at a lighter weight.

Some of these rolling pastures are not good enough to finish a steer but farmers must still utilize the grass, so they have turned to cow herds. On other farms the pastures will grow cattle but cow herds are scarce because the farmers by temperament do not like handling cows and calves, so they buy young stock, grow them for a season, and then sell them to finishers.

In the Shenandoah Valley, in northern Virginia, and a considerable area around Richmond a great many farmers can grow bumper feed crops, but they have little pasture and therefore should and do specialize in feeding steers. In still another section, middle and southside Virginia, farmers have been, for generations, growing tobacco but since the tobacco market has "curdled" a little, these farmers want beef cattle.

For some years the Virginia animal husbandry program has encouraged the establishment of cow and calf herds to supply the demand for feeders in both Virginia and neighboring States. The State commissioner of agriculture estimates that between 13 and 20 thousand cattle are brought in annually for finishing on pastures and

in feed lots. For this reason the extension program has encouraged the growing of calves by farmers who were not making any money from grazing steers anyhow.

Virginia is no pioneer in establishing feeder-calf sales, but from reports of other States it looked like a fine idea so we fell in line. Three years ago a few sales were started in a small way but not until 1940 were they tried on a larger scale. Nine of these sales were organized by county agents last year and the results were most satisfactory. Although they were intended to include only calves, some yearlings and a few purebreds were sold.

Each sale was handled by a committee composed of two consignors and the county agent. On the morning of the sale, calves were brought to the yards where they were graded into uniform lots by an official grader representing the State division of markets. In most cases they were treated for hemorrhagic septicemia (having been previously treated for blackleg), as soon as they were unloaded, and then sold to the highest bidder according to grade. Last year 1,980 head were sold for a total of $91,047.68. Three rather outstanding things were apparent to all: (1) Poor-quality calves brought poor prices; (2) buyers showed no eagerness to bid on a small calf; and (3) buyers generally showed a preference for graded stock. A representative of the animal husbandry department assisted with the sorting and recording, keeping sales records, ring procedure, and taking punishment from calves' heels. It has been suggested that next year animal husbandmen and county agents be provided with shinguards, breast plates, and smelling salts.

Much favorable comment has been received regarding these sales and in one county a woman applied for the right to consign before she had even bought her cow herd. It is believed that through organized, well conducted sales and by official grading, we can supply the needs of feeders in this area, educate cowmen as to the value of growing a high-quality calf, and help cattlemen to make a little more money from their business. This applies both to the man who breeds cattle and the one who buys them.

We are starting now to organize more efficiently to avoid the mistakes of last year. We propose to require in 1941:

1. Incorporation of the organization for promoting the sales.
2. No calf permitted to enter under 300 pounds in weight.
3. All calves to be vaccinated for blackleg and hemorrhagic septicemia according to specifications from the State veterinarian.
4. Establish an insurance fund to prove against possible losses.

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# THE EXTENSION ANIMAL HUSBANDMAN AND DEFENSE

By W. T. Cobb, Beef Cattle Specialist,
Louisiana State University.

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One of the great lessons England has learned from the war is the long-time effect of inadequate diets on people of the lower-income brackets. When the children of the crowded cities were evacuated, the complacent upper groups were startled into a realization of the true conditions.

Germany is beginning to realize the effects of the lack of a good diet on the civilian population, as are the Italians. The loss of animals and animal products can be withstood just so long, then a reaction sets in. Meat and butter, milk and cheese, assume an importance overlooked when supplies are plentiful.

It is fitting, therefore, that the United States should take steps to build the first line of defense, a full and adequate diet for all the people of this country, as has and is being done. The National government in setting up the Council for Defense took note of the necessity for a complete diet and established the Committee on Nutrition, then carried that organization on down into the States by the appointment of committees on nutrition for the States.

It therefore behooves the extension animal husbandman to take note of these facts and give serious thought to the part he can play in carrying out these plans for national defense. He is concerned first with production of livestock. Upon him rests some of the responsibility of keeping a full supply of meat and meat products flowing into channels of consumption. It is his job to assist in every way the production of these essentials to an adequate diet as efficiently as possible in order that all consumers, whatever their income, may be well fed while the producer will be profitably reimbursed for his efforts.

In order to maintain a full supply of meat, particularly of beef, it is necessary that full use be made of all available lands not devoted to crops for livestock production. At the present time beef is out of line with other commodities, even though we have an increase of over two million head of cattle, as reported by the Agricultural Marketing Service. The present price index shows beef at about 126. If prices go much higher the ultimate effect on the livestock industry will be disastrous, as has been the case in previous periods of run-away prices. These things work a hardship on both producer and consumer -- on the producer because ultimately he must readjust his program to a lower range of prices, usually lower than justified.

It is the animal husbandman's job to keep informed on these facts and trends and act as a balance to prevent such conditions from arising. This he can do by keeping the facts before his producers and analyzing them in the light of past experiences coupled with an interpretation of future possibilities.

In the South it is generally conceded that a large part of the population is inadequately fed. Personally, I think this has been overemphasized but in general the diet of the farm people, especially the tenants, could be improved. It is generally stated that the beef consumption of the South is too low. Some authorities have placed a figure as low as 15 to 20 pounds per capita consumption of beef annually. If this figure is approximately correct, the animal husbandman and particularly the meat specialist and the nutrition specialist have a real job in raising this figure to the national annual per capita consumption of 55 to 60 pounds of beef and veal.

It is rather generally agreed that while there may be and probably will be some restocking of the great western range States, it is not in the picture at the present time that this area can increase cattle population fast enough to care for the increased consumption brought on by improved industrial conditions and the increase of per capita consumption brought on by the meat-fed army now in the process of formation. How far this will go or how long it will last is for the future to decide, but the immediate need is for some increase in beef production in order to keep the prices in line with those of competitive food products.

The Corn Belt and the South must be depended upon to produce this extra quantity of meat needed, if meat, particularly beef, produced in the United States is to be used in the diet of all the people. If we produce all we can produce by utilizing all available forage and feed crops under well-planned land-utilization programs, the problem of utilization by southern people still remains to be solved. Here the freezer locker and the curing plant come into the picture. Every farmer should have access to a plant, within reach, where his pork products can be processed without fear of loss, and every farmer should be within easy reach of a freezer locker where fresh meats of all kinds can be available for building a diet rich in the main constituents of a real diet, namely, fresh meat.

In Louisiana we have over 170,000 farmers. If each of these farmers provides one beef for his own use and can be assured that he can store it safely for use over a period of 6 to 8 months, at least 220,000 breeding cows will be needed to supply this item in the Louisiana farmers' diet alone. This same condition exists over all the South and a large part of the rest of the Nation.

The animal husbandman can do his part in the organization of facilities to fill this vital need. This phase of his work will contribute almost as much to the movement of well-fed healthy people as will his efforts in production lines. But he must never overlook the fact that his first job is the production of livestock as a part of a well-rounded program designed to make living on the farm as desirable as can be achieved anywhere, with the added advantages that farm life offers for the development of young people.

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## TEXAS MARKET TOURS

The Fort Worth market cooperated in the holding of market tours in accordance with a plan worked out with the College extension service. This plan provides that the county agent can ship the livestock produced by his 4-H club boys to Fort Worth where the livestock will be marketed in the regular way. The county agent can bring his boys and a few adult leaders to the market along with the livestock. The Fort Worth market acts as host to the boys, provides lodging and a banquet. The boys spend the entire day on the market and see their own livestock unloaded, graded, fed, and sold. They see their livestock go across the scales and after that they are taken on an educational tour over the market, including a trip through a packing house. Twenty-eight different counties marketed their 4-H livestock in accordance with this plan in 1940. Detailed figures on the livestock sold and the number of boys who participated are available for only 24 of the 28 counties and are as follows: 381 calves, 116 hogs, and 698 lambs were sold through 8 different commission companies. The livestock was bought by five different packing houses. A total of 493 boys participated in the tours, and the net proceeds to the boys for livestock sold amounted to $30,847.92. Numerous letters have been received from county agents, who took their boys on these tours, in which they expressed themselves favorably to this plan, and it is anticipated that a much larger number of counties will market their 4-H livestock in accordance with this plan during 1941. It is hoped that a similar plan can be worked out at San Antonio and Houston markets.

--From Texas Annual Report, 1940.

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## THE ONE SURE THING

"Nothing in the World can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent. The slogan 'Press On' has solved and always will solve the problems of the human race."

--Calvin Coolidge.

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# FARM MOVIES AID EXTENSION

By James J. Lacey,
Extension Professor of Animal Husbandry,
Wisconsin College of Agriculture.

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Motion pictures are always an attraction in agricultural extension work. More especially are movies helpful and interesting when they contain things, persons, or places with which farm audiences are familiar. Farm people are no different than others in the world in desiring the brief recognition that goes with their pictures on the screen or their names in print.

With this knowledge in mind, the Department of Animal Husbandry at the Wisconsin College of Agriculture has nearly completed a sheep-management motion picture film, in colors, and is arranging for similar films on swine and beef cattle. The pictures will be used in classroom as well as in extension work. Results to the present time show very decidedly that movies have a place in creating and holding interest in educational work in the livestock field.

Before the photographing was begun by Dr. Gus Bohstedt, a plan was developed whereby the features of sheep production and sheep management that needed most attention could be given most emphasis. As the periods of the year arrived for certain management practices, the photography work was done. Every effort was made to have the pictures represent actual farm conditions, and to show the management followed by average sheep producers. Only a few feet of film was necessary to link the work at the experiment station to field work. Continuity, or sequence, was arranged after the photography was completed.

Breed type and breed selection were emphasized in the Wisconsin ram-truck pictures and in others made at the University farm. Various breeds, which may be discussed as the picture is being shown, are represented.

The story of fleece quality, proper methods of shearing, and preparation of fleeces for sale are told vividly in colors as the result of a shearing demonstration. Pictures of wool growers' discussions concerning methods of sale, and of equipment that is essential to prevention of "reject" fleeces complete the story of wool as a factor in sheep income.

Parasite control is given more footage than is any other single

item. The use of portable and stationary vats for dipping, the preparation and administering of liquid drench, and the use of capsules for internal parasite elimination are shown in vivid coloring. Easy, simple methods of docking and castrating and of snipping the eyelids to correct entropion are included in closeups.

Dr. Bohstedt was fortunate in being able to photograph, for the film, the birth of a lamb which included the attention and equipment needed at that particular time and followed the photography at lambing time with successive scenes during the lamb's development through the suckling and creep-feeding stages. Pasture usage offered another excellent opportunity for outdoor pictures, and feeder lambs on late pasture and in cornfields afforded a chance for the beauty of the autumn season to be included.

Two features are still to be included. Lamb grading for market and lamb feeding as a 4-H Club project will be filmed during the coming year. When these features are completed every phase of sheep management and care will be told in visual manner. A syllabus will be prepared also, to permit use of the film by county agents and others when attendance by a representative from the college is not convenient.

Seven demonstrations in the films, all more effective than the actual demonstration itself, tell good educational stories. Enlarged as they are, on the screen, details that are lost in actual demonstrations are shown clearly even to large audiences. And the audiences like it. As stated above, any member of any audience secretly enjoys seeing himself on the screen. Just how well this statement applies has been shown by an attendance of 50 persons at a sheep meeting, the evening before Thanksgiving Day, in a locality where much of the photography was done.

Because extension cannot be separated from research and teaching, some footage is devoted to the college flock and to work being done in research on sheep. Under the direction of Prof. A.E. Darlow, formerly of Oklahoma, and head of our Animal Husbandry Department, a more important place for sheep in Wisconsin's livestock program has been planned, and the use of film in bringing to the livestock interests a knowledge of the sheep possibilities of the Badger State is an important step in livestock education.

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"There is the possibility that a young man or woman who moves from the farm to the city may become many times richer, but there is a strong probability that he or she will die poorer in the city than on the farm. Wealth in the city is in no small measure the result of chance, a gamble by millions of people for big stakes in which a few thousand win. Wealth in the country, on the other hand, is normally the result of hard work, managerial ability, and thrift." --O.E. Baker

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## TEXAS SWINE WORK, 1940

1940 has been a very difficult year in which to make progress with swine-production demonstrations due to extremely unfavorable hog prices, combined with an unfavorable hog-corn ratio. At the same time cattle and sheep prices were very favorable. This resulted in hog producers being very much discouraged and it was a difficult matter to hold the regular hog producers in the business, and likewise it was very difficult to find new producers who were willing to conduct a thorough going demonstration in hog production. The outlook of course was not so bad, and if it had not been for the encouraging outlook to which we could constantly point, we would not have been able to accomplish what was accomplished. In spite of the difficulties confronting us during the year we succeeded in reaching the goal that we had set in our Plan of Work a year ago, and in some instances we were able to pass the goals set. We are therefore very much encouraged over the work accomplished.

At the beginning of the year we set a goal of 500 swine-production demonstrations with adults to be located in approximately 100 different counties. We closed the year by completing 632 demonstrations in 94 different counties. In 1939, 586 such demonstrations were conducted as compared to 632 demonstrations for 1940. This represents approximately an 8 percent increase in the number of adult demonstrations completed. The goal for demonstrations with 4-H club boys was 6,000 demonstrations in 150 different counties. We ended up the year with 5,727 demonstrations in 187 counties. In 1939 we completed 5,578 such demonstrations. The number of demonstrations completed in 1940 represents a 3 percent increase over 1939.

A very good grain feed crop was produced in Texas during 1940. The grain feed supply in the fall of 1940 was from 25 to 30 percent larger than the average grain feed production for this State. This abundant grain feed supply had an influence on the producers during the fall of the year and this abundant feed supply, in combination with more attractive hog prices for 1941, is making the outlook for hog work in 1941 much more encouraging.

There are two distinct types of hog production in Texas, namely, the production of hogs for home use and the production of hogs for sale. The production of hogs for home use is an old and well established farm practice. The practice is so old that it has become a tradition with the farmers and a vast majority of all farmers in Texas produce a few hogs for home consumption regularly. In producing hogs for home use, the farmers feed them to a great extent on material that could not be otherwise utilized. In most instances they are kept in a small pen and fed corn, grain sorghums,

milk, cull potatoes, cull tomatoes, watermelons, pumpkins, pie melons, vegetables, and waste from the kitchen. When fed in this manner the hogs during certain seasons receive sufficient protein and carbohydrates to make fair to ordinary gains and that is all that is expected of them. The rations are usually lacking in minerals and vitamins and during certain seasons of the year they are deficient in protein. Sanitary conditions of the hog pens are usually very bad and diseases and parasites are prevented only by the fact that only one, two, or three hogs are produced per farm. The cost of production is quite low because feeds fed do not have a very high commercial value.

About 25,000 Texas farmers produce commercial hogs. The number of farmers engaged in commercial hog production varies considerably from year to year. Not only does the number vary considerably from year to year but the individuals who constitute our commercial hog producers change a great deal. Quite a large percentage of our one-half million Texas farmers have ventured into commercial hog production sometime or other. Many of them have made a financial success out of the venture for a while. A fair number have become permanent hog producers.

Texas ranks seventh in the United States in number of hogs produced. Hogs can be produced as cheaply in this State as anywhere in the United States and cheaper than in most areas. We have the natural advantages of a mild climate and a fertile soil. Therefore we can grow an abundance of nutritious grazing during almost the entire year and we can also grow feed grains to an advantage.

The expansion of the hog producing industry depends upon the further expansion of the pork packing industry, the improvement of the hog markets, and further developments in the growing, harvesting, and storing of grain feeds. At present the pork packing plants in Texas are few and far apart and consequently farmers are compelled to haul their hogs great distances to market. This marketing expense naturally has a discouraging effect.

Swine demonstrations are planned and conducted so as to make the enterprise more permanent and more profitable to the demonstrator. It makes little difference if the demonstrator is producing hogs for home use or is producing hogs for market. Swine demonstrations are planned to meet the needs of the various agricultural regions. Each plan for a demonstration must fit the rest of the farm and must take into account the soil type as well as the best possible land use. The demonstration must also take into account the amount and kind of feed produced on the farm, the available equipment, the financial ability of the farmer to purchase new equipment, the climatic conditions, and last but not least the plan of the demonstration must take into account the personal desires and aptitudes of the demonstrator.

Insofar as it is possible each demonstration is planned to put into practice all the known scientific and proved methods of profitable swine production. Some of the methods and practices are: Use of improved breeding stock, criss-cross breeding as outlined in Minn. Expt. Station Bulletin No. 320, self-feeders with sows' suckling litters as outlined in Farmers' Bulletin No. 1504, self-feeders for feeding pigs after weaning, feeding dry brood sows once daily based on unpublished and experimental work at the Texas Station, feeding a balanced ration, use of simple protein supplement mixtures, use of suitable water troughs as outlined in Texas Extension Bulletin B-81, use of concrete hog wallows as described in Texas Extension Bulletin B-81, use of adequate shelter as described in Texas Extension Bulletin B-81, properly fenced hog pastures, adequate grazing available at all seasons of the year, use of whole grain whenever practical to save grinding costs, swine sanitation and disease and parasite prevention, full feeding and early marketing, marketing at seasons when peak prices usually occur, cooperative marketing, hogging down crops to save harvesting cost, and feeding a mineral supplement.

Of course it is not practical for all of these practices to be incorporated in each and every demonstration. In the case of the farmer who purchased a few feeder pigs and feeds them on available feed on the farm and then slaughters them for home use, many of the above-named practices will not apply. In this instance we may encourage the farmer to provide a small pasture for his hogs to take the place of the insanitary and dirty hog pen. This pasture, if planted to grazing crops, will also furnish the green grazing which is needed to balance the vitamin content of the ration. This pasture will also make it possible for the hogs to receive the proper amount of exercise. We may also encourage this farmer to feed a mineral supplement, and if the supply of milk is insufficient, we will encourage him to add a small amount of cottonseed meal and tankage to the ration. We also possibly would encourage the construction of adequate shelter and the construction of an adequate water trough. These few simple recommendations, if properly carried out by the demonstrator, will usually make a huge success out of a small enterprise and the demonstrator will be highly pleased with the results.

On the farm where the farmer is producing hogs for sale, most of the practices listed above will be employed and the agent will visit the farms frequently. The new demonstrator usually starts with employing only one of the practices mentioned in this report. He may start by building a self-feeder and after he has used it, he will become convinced that it is a good method. Next the agent may suggest that he purchase some improved breeding stocks and follow this suggestion with a suggestion for more and better pasture. Thus the demonstration grows from week to week and from year to year until finally this particular demonstration involves all of the best known practices.

Swine demonstrations frequently stimulate demonstrations in other lines of work. For instance, the farmer may start improving his hog enterprise, he finds that with careful management he can make a nice profit out of the enterprise. Naturally he then has a desire to enlarge the enterprise, but in order to onlarge the enterprise it will be necessary for him to grow more feed and that means either a larger acreage of feed or better methods of feed production so as to increase the per acre yield. In expanding his feed production he will naturally look to the county agent for further aid and suggestions and the result is that he becomes a corn or grain sorghum demonstrator. This change in cropping system in turn will require further planning and as a result many of our "all farm demonstrators" started with a swine demonstration. It is also true that many of the "all farm demonstrators" first become interested in feed production and later became swine demonstrators because they were looking for a means of selling certain feed at a profit.

During 1940 there were 632 demonstrations of the type explained above, conducted in 94 counties in Texas; 542 meetings were held; and 792 news stories published. This represents an 8 percent increase in the volume of work done in 1940 as compared to 1939.

--From 1940 Annual Report of E.M. Regenbrecht,
Texas Swine Specialist.

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A "horse and mule" program was held at the Lampeter School building, Lancaster County, Pa., December 2, under the direction of W.B. Rentschler, agricultural supervisor of the school. Several talks and motion pictures in color featured the program. Included in the pictures was one of 20 head of mules hitched to a Conestoga wagon and driven with a single line around the school grounds which spotlighted the opening day of the West Lampeter Community Fair in September.

--The Rural New-Yorker, Dec. 28, 1940.

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If the condition of man is to be progressively ameliorated, as we fondly hope and believe, education is to be the chief instrument in effecting it. --Thos. Jefferson

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EROSION

Hordes of gullies now remind us
We should build our lands to stay,
And, departing, leave behind us
Fields that have not washed away;
When our boys assume the mortgage
On the land that's had our toil,
They'll not have to ask the question
"Here's the farm, but WHERE'S the SOIL?"

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## RESULTS OF U.S.D.A. SWINE TYPE STUDY

The Federal Bureau of Animal Industry has conducted a study on swine types at the Beltsville Research Center since 1931, comparing the ability of hogs of different types to produce pork efficiently. Large, intermediate, and small-type Poland-China hogs were used.

Large-type and intermediate type sows farrowed and weaned a larger number of pigs per litter than small-type sows. Large- and medium-type pigs were heavier at birth and at weaning time. The medium-type pigs made the fastest gains, the large-type pigs ranked next, and the small-type pigs last. However, the difference in feed requirements per 100 pounds of gain was too small to indicate an advantage for any of the three groups.

When the three lots were fed out to a final weight of 225 pounds, the small-type hogs were too fat and the large type underfinished. When fed to the same degree of finish, the small-type hogs weighed 143 pounds, the medium type 214 pounds, and the large type 225 pounds. Considering all factors, the intermediate type is believed to be superior in its all-round ability to meet present-day marketing requirements. It has the weight advantage that is flexible enough to furnish a good market hog at weights of 200 to 235 pounds and heavier if conditions warrant.

Average results of studies on three types of hogs fed to 225 pounds in weight

| Item | Type of hog or carcass | | |
|---|---|---|---|
| | Large | Intermediate | Small |
| Daily gain ---------- pounds | 0.98 | 1.08 | 0.90 |
| Feed per 100 pounds gain " | 424 | 423 | 445 |
| Market grade of live hog ------ | Good | Low Choice | High Choice |
| Dressing percentage ---------- | 74.3 | 73.6 | 78.2 |
| Carcass yield of -- | | | |
| Ham, bacon, and loin - percent | 46.8 | 45.7 | 44.6 |
| Skinned back fat, leaf fat and fat trimmings " | 14.5 | 16.6 | 20.7 |

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"Cooperation is the process of enlarging one's power of achievement through combining the energy of others with his own. Exerting some of one's energy to secure the added help of others is an investment of effort which no one can neglect and succeed in a large way. Such investments pay dividends in a proportion far greater than one's investment of his own energies alone could produce. Union of forces gives greatness of strength resulting in corresponding greatness of results." --A.C. Burnham and F. G. Bonser

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## PUREBRED-LIVESTOCK IMPORTATIONS

During 1940 larger numbers, of purebred animals, than in any recent year were certified for free entry into this country under the provisions of the Tariff Act of 1930. Last year's importations were nearly 16 percent greater than in the previous calendar year. This increase is attributed, in part, to a desire on the part of breeders to prevent the loss of prominent blood lines in countries engaged in or threatened by war.

More purebred cattle were certified for importation than any other kind of domestic animals. Of a total of 13,044 cattle, the breeds leading in numbers were Holstein-Friesian, Ayrshire, Hereford, and Jersey, in the order listed. Among the Jersey importations were 99 animals from the Isle of Jersey which are believed to be the last that will be shipped from the Channel Islands, at least for several years.

Sheep totaled 3,417, among which animals of the Suffolk, Southdown, and Lincoln breeds predominated.

Horses numbered 353, with Thoroughbreds, Percherons, Clydesdales, and Belgians certified in largest numbers, in the order listed. The year 1940 was the first in which Thoroughbreds headed the list of purebred horse importations. Nearly two-thirds of the horses were Thoroughbreds from England and France. Several outstanding sires representing prominent blood lines were transferred to patrons of horse breeding in the United States.

Certifications of purebred swine included three breeds, Yorkshire, Berkshire, and Tamworth, numbering 41 head in all.

The list of certifications during 1940 included also 778 dogs, and 3 cats of various breeds. --U.S.D.A. Press Release

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## DR. SMITH SAYS ...

The richest inheritance a boy or girl can have is not money or lands, stocks or bonds, but rather to inherit a clean and healthy body and mind, to be born of understanding parents, to have tasks to do, to be able to go to a public school and to church, to have the privilege of playing in open fields, in shaded woods and along streams, to know something of the natural and social worlds around them. To have an inner urge to accomplish.

If one perchance does not have parents who are understanding and just, forward looking and stimulating; who have not given us sound bodies and clear minds, the next best thing is to strive to be such parents ourselves should that responsibility ever be ours.

No youth need lose hope because he or she may be poor or have to work hard to make ends meet. Millions have travelled the road of poverty and work to great achievement. They are privileged youths who have to work and struggle for an education, for a job, for an income.

--C.B. Smith, National 4-H Club News, Sept. 1940.

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## PERSONNEL NOTES

Georgia

Chas. E. Bell, Jr., swine specialist, has been called to active duty as a reserve officer by the War Department and is now stationed at Fort Robinson, Nebr. Ernest Pace, Jr., has been appointed to succeed Mr. Bell.

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Indiana

Claude Harper, sheep specialist, officiated as judge of the medium-wool breeding classes, the individual fat lambs, and the carloads of lambs at the recent Southwestern Exposition and Fat Stock Show, Ft. Worth, Tex. W. T. Cobb of Louisiana and M. W. Muldrow of Arkansas also attended this event.

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Iowa

C. W. McDonald, sheep and meats specialist, was a member of a commercial-packer sponsored educational tour which extended from February 2 to 15. The party visited Chicago, New York, Boston, Philadelphia, Baltimore, and Washington.

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Kentucky

Wayland Rhoads, beef cattle specialist, has been called to active duty as a reserve officer by the War Department for a period of 1 year. He has been stationed in Washington, D. C., for a 3-month course at the Army Industrial College.

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Minnesota

W. E. Morris, extension animal husbandman, participated in the same educational tour mentioned above under Iowa.

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Ohio

L. P. McCann, extension animal husbandman, was on leave from his regular duties, January 2 to March 22, during which time he did graduate work in the Ohio State University.

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Texas

Roy W. Snyder has returned to his former assignment as meats specialist, after serving for several years in another branch of the Texas extension service.

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West Virginia

Benj. F. Creech has returned to his former position as extension animal husbandman, after spending 7 years as executive secretary of the West Virginia State Farm Bureau.

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Next in importance to the divine profusion of water, light, and air, those three physical facts which render existence possible, may be reckoned the universal beneficence of grass. --John J. Ingalls.

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## RECENT PUBLICATIONS

(This list is limited to publications of interest to extension workers. In most cases copies are available from the institution or agency issuing them. Do not write to Washington, D. C., for other than U.S.D.A. publications.)

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"Livestock on Farms Jan. 1," Crop Reporting Board, Agricultural Marketing Service, U.S.D.A., Washington, D.C. - Mimeo. pp. 13, tables, Feb. 1941.

"Estimated Production and Consumption of Federally Inspected Meats, 1940" - Mimeographed tables for each variety of product, issued by the Agricultural Marketing Service, U.S.D.A., Washington, D.C.

"Weight and Cost of Livestock Slaughtered under Federal Inspection, 1940" - Mimeographed tables by species of animals, issued by the Agricultural Marketing Service, U.S.D.A., Washington, D.C.

"Lard production in federally inspected plants and estimated consumption, 1940" - Mimeographed table, Agricultural Marketing Service, U.S.D.A., Washington, D.C.

"Driven-in Receipts of Livestock, 1940" - Agricultural Marketing Service, U.S.D.A., Washington, D.C., pp. 19 (tables).

"Report of the Chief of the Bureau of Agricultural Economics, 1940" - U.S.D.A., Washington, D.C., pp. 100.

"Farm Fences," by M.A.R. Kelley, Bureau of Agricultural Chemistry and Engineering, U.S.D.A., Washington, D.C. - Farmers' Bulletin 1832, Jan. 1940, pp. 58, figs. 64.

"Approximate Physical Composition of the Primary Cuts from Lamb Carcasses of Different Market Grades," by O. G. Hankins, Bureau of Animal Industry, U.S.D.A., Washington, D.C. - Mimeo. pp. 3.

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"Report of the Chief of the Bureau of Animal Industry, 1940" - U.S.D.A., Washington, D.C., pp. 90.

"The Horn Fly and its Control," by W. G. Bruce, Bureau of Entomology and Plant Quarantine, U.S.D.A., Washington, D.C. - Leaflet No. 205, pp. 5, figs. 3, Dec. 1940.

"Leaders on the Land" - A Report of Cooperative Extension Work in Agriculture and Home Economics in 1939 - Extension Service, U.S.D.A., Washington, D.C., pp. 39.

"Effective Extension Circular Letters," by H. W. Gilbertson, Extension Service, U.S.D.A., Washington, D.C. - Misc. Pub. No. 403, pp. 43, figs. 27, Jan. 1941.

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"Working Plans for Permanent Farms," by Glenn K. Rule, Soil Conservation Service, U.S.D.A., Washington, D.C. - Misc. Pub. No. 411, pp. 41, figs. 32, Oct. 1940.

State

"4-H Beef Production Handbook," by J. T. Rigden, - Arizona Extension Service Circular No. 111, Jan. 1941, pp. 28, figs. 22.

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"Making Better Use of Legumes and Grasses," by E. T. Robbins, et al - Illinois Extension Service Mimeo., pp. 25, Aug. 1940.

"Contribution of Livestock to Increased Farm Incomes and Better Land Use," by P. E. Johnston - Illinois Extension Service Mimeo., pp. 8, March 1940.

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"Pork on the Farm - Killing and Curing," by J.B. Francioni, Jr. - Louisiana Extension Service Circular 119, reprinted June 1940, pp. 31, illus.

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"Livestock Marketing," - A text book, by A.A. Dowell and Knute Bjorka, published by McGraw-Hill Book Co., Inc., New York, N. Y. - pp. 534, 47 tables and 104 illus.

"Livestock Grading in Virginia 1940," by C.P. McClaugherty, Division of Markets, Virginia Dept, of Agriculture, Richmond, Va., 4 pages of tables.

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## NONRAIL RECEIPTS OF LIVESTOCK, 1940

The table below presents the "drive-in" (nonrail) receipts of livestock in 1940 at 17 principal markets, also the percentage such receipts were of the total receipts. Based on total reported receipts at the listed markets, the percentage of each class of livestock classified as "drive-ins" was as follows: Hogs, 74.9 percent; calves, 70.7 percent; cattle, 66.6 percent; and sheep and lambs, 35.3 percent.

| Market | No. head "drive-ins" | Percentage of total receipts |
|---|---|---|
| Nat'l. Stk. Yds. | 4,175,593 | 77.1 |
| Chicago | 4,125,109 | 42.6 |
| So. St. Paul | 3,844,516 | 68.1 |
| Indianapolis | 3,291,931 | 97.7 |
| Omaha | 2,719,187 | 54.8 |
| Sioux City | 2,439,649 | 74.1 |
| Fort Worth | 1,927,510 | 79.2 |
| Kansas City | 1,691,566 | 46.8 |
| St. Joseph | 1,668,205 | 66.5 |
| Cincinnati | 1,258,268 | 73.1 |
| Oklahoma City | 1,086,209 | 86.9 |
| Sioux Falls | 881,782 | 96.3 |
| Milwaukee | 818,362 | 69.1 |
| Wichita | 803,263 | 84.6 |
| Denver | 711,565 | 18.7 |
| Louisville | 696,599 | 87.2 |
| Portland | 290,376 | 42.2 |
| Total..... | 32,429,690 | Average... 62.1 |

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